DATE OF THIS VERSION (new)
May 1, 2013

TITLE OF DOCUMENT (new title if applicable):
Underground Storage Tank Removal, 02 65 00

DATE OF VERSION BEING SUPERSEDED (old):
July 1, 2011

DESCRIPTION OF DOCUMENT (previous title, number, other identifying data):
Underground Storage Tank Removal, 02 65 00

SUMMARY OF CHANGES IN THIS VERSION:
            Added the work “liquids” in reference to storage materials, removals, and disposal.
1.1.B.2    Added remove and disposal of tank material.
1.1.B.3    Added excavation of combustible vapors within soils.
1.2    Removed reference to Section 23 05 11
1.3.    Added tank removal must comply with American Petroleum Institute, updated references.
1.4    Added information about submittals.
1.5    Updated references. And removed reference for NFPA.
3.1    Added information about notifying the State Agency prior to closer determine if there is
            contamination and what to do if there is.
3.2    Deleted spec writer notes.
3.3    Added Stated Agency to the note.
3.4.A    Added that soil samples must be shown on an as-built plan and revised EPA reference.
3.4.B    Removed reference to Earth Moving section and directed how to restore the site with notes.
3.5 Added State Agency and then revised the notes about where the soil samples are to be taken. Information added about who to contact if more testing is required. Revised information on what is considered the base price.

3.5.C Added “as per State Agency”.

1.
PART 1 - GENERAL

1.1 DESCRIPTION:
A. Underground Storage Tank (UST) Liquid Removal:
   2. Liquid Removals and Disposal.
   3. Certification of Liquid Contents and Disposal.
B. Underground Storage Tank Cleaning and Disposal:
   1. Excavation of Tank.
   2. Removals and Disposal of tank material.
   3. Evacuation of Combustible Vapors within soils.
   4. Tank Cleaning.
   5. Disassembling of Tank.
C. Contamination Assessment:
   2. Contaminated Soil Disposal
D. Report:
   1. Written report describing in detail the procedures used to remove
      the liquid from the underground storage tank, cleaning and removing
      of the underground storage tank, and disposal of the liquid
      residues.
   2. Photographic documentation of the work, including lab and field
      results, and receipts from the proper authority for the tank and
      residue disposal.

1.2 RELATED WORK:
A. Section 01 45 29, TESTING LABORATORY SERVICES
B. Section 02 41 00, DEMOLITION
C. Section 31 20 00, EARTH MOVING

1.3 QUALITY ASSURANCE:
A. Underground storage tank removal and disposal shall comply with the
   following:
   1. American Petroleum Institute (API) recommended Practice 1604.
   2. United States Environmental Protection Agency (EPA), 40 CFR Part
      280.

1.4 SUBMITTALS:
A. In accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES, furnish the following:
   1. Notice of intent to close the UST.
   2. Documentation of disposal of tank an approved disposal site.
   3. Documentation of disposal of liquid material to an approved disposal site.
   4. Documentation of disposal of contaminated soil to an approved disposal site.
   5. Certification documents that personnel are qualified for UST closures.
   6. Six copies of Final Closure Report including all sample tests.
B. Furnished detailed CADD generated submittals including:
   1. Detailed plan view
   2. Piping removal diagrams
   3. Control removal diagrams
   4. Component diagrams including tank removal procedure
   5. Detailed sequence of procedure
   6. Local Fire Marshal requirement
   7. Hazardous material plan for local VA management
   8. State Agency requirements.

1.5 APPLICABLE PUBLICATIONS:
A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
B. American Petroleum Institute (API):
   1604-(2010) ............ Closure of Underground Petroleum Storage Tanks
C. American Society of Testing Materials (ASTM):
1.6 PROJECT SITE CONDITIONS:

Do not close or obstruct streets, sidewalks or drives without permission and approval of the Contracting Officer. Submit to Contracting Officer the closure plan 30 45 60 days prior to construction.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 GENERAL:

A. Notify the regulating State Agency at least 30 days prior to closure of the site.

B. Determine if contamination from the UST is present.

C. If contamination exists notify the Contracting Officer for proper recording of the site for a period set by the State Agency and/or EPA.

D. Remove underground storage tank, liquid, and associated work, including soil removal as specified and indicated on the drawings.

E. Restore the excavated area with new materials as specified to match adjacent (existing) surfaces.

3.2 UNDERGROUND STORAGE TANK LIQUID REMOVAL:

A. Provide samples of liquids from the underground fuel storage tank to a qualified state certified hazardous waste testing facility for laboratory analysis and approval for the liquid disposal and disposal location.

B. Remove the liquid from the tank for disposal prior to removing the tank from the ground.

C. Provide documentation of the liquid removal and its disposal in a final report to the Contracting Officer.

3.3 UNDERGROUND STORAGE TANK CLEANING AND DISPOSAL:

A. Tank shall be reviewed and certified clean by local Fire Marshal and State Agency.

B. Remove the tank from the ground, place it on the ground adjacent to removal location, and secure it prior to cleaning.

C. Measure levels of combustible vapors and oxygen, and initiate ventilation of the tank, if needed:

1. Ventilate tank using a small gas exhauster until the vapor concentration is reduced to 10 percent or less of the lower explosive limit.

2. Oxygen content shall range from 19.5 to 23.5 percent.
3. Cut access ports for cleaning into tank after vapor and oxygen concentrations have met the requirements noted above.

D. Cleaning of the tank shall include mopping, scraping, and sweeping the interior of the tank.

E. Collect, contain and place residuals in a United States Department of Transportation (DOT) approved type 17H, 200 L (55 gallon) capacity drum, for transporting and disposal.

F. Ensure final vapor and oxygen concentration are within the requirements noted above before proceeding to cut and dismantle the tank for its disposal.

G. Remove dismantled tank to an approved disposal facility.

H. Obtain disposal facility receipts noting proper tank disposal.

3.4 REMOVED TANK AREA ASSESSMENT:

A. Collect five soil samples from the removed underground storage tank area. Show the location of the soil samples on the as-built plan sheet. Take one sample from each of the sidewalls, and one sample from the base. Containerize the samples in glass sample jar(s), seal with Teflon-coated lids, and place the jar on ice. Deliver samples with completed chain-of-custody documentation to the laboratory. Laboratory shall analyze each sample for Total Petroleum Hydrocarbon (TPH) concentrations as per EPA SW-846.

B. Site Restoration: Restore site with imported clean soil or sand. Replace any pavements, sidewalks, and/or curbs to match adjacent material. Restore landscaped areas and grass areas to match adjacent material.

3.5 CONTAMINATED SOIL:

A. When soil assessments reveal evidence of leakage or spillage of hydrocarbons at levels above those established by the \ State Agency \ . Collect six (6) additional soil samples beyond the boundaries of the original tank location. Samples to be taken 20 feet (6 m) from edge of tank wall location as follows: 2 samples on each side, right and left, of long axis of tank and one sample both ends of the tank. If contamination still exists, notify Contracting Officer to determine additional testing that will be required. The base price for volume between the final tank volume of material for the enclosure and the enclosure shall not exceed 100 cubic yards (76 cubic meters) of soil removed. Any work beyond 100 cubic yards (76 cubic meters) and more
than 6 test locations shall be considered extra and shall be based on unit pricing.

B. Continue the soil contamination assessment testing around the tank until the contamination level is within acceptable level, less than 100 parts per million.

C. Remove all contaminated soil from the site and haul it as per State Agency protocol.

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